



# Mineral Industry Surveys

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### **ANTIMONY IN THE FIRST QUARTER 2004**

Domestic consumption of primary antimony in the first quarter was estimated by the U.S. Geological Survey to be about 25% higher than that in the fourth quarter and about 7% lower than that in the first quarter of 2003. China was the main source of metal imports in the January/February period, while Mexico was the major source of oxide in the same period.

The Platts Metals Week New York dealer price of antimony metal averaged \$1.22 per pound in January, moved to \$1.24 per pound in February, and rose to \$1.38 per pound in March. The average price for the first quarter, \$1.28 per pound, increased 6% over the average price for the first quarter of 2003.

Great Lakes Chemical Corp. (Indianapolis, IN) and Laurel Industries, Inc. (Dallas, TX), a subsidiary of Occidental Chemical Corp. ("OxyChem"), which is wholly owned by Occidental Petroleum Corp., announced a merger of their antimony businesses as part of a joint venture to develop, produce, and market antimony-based flame retardants, synergists, and catalysts. Great Lakes and OxyChem will both hold a 50% stake in the new company, which will operate under the name GLCC Laurel LLC. The integration of business units, expected to be completed quickly, includes the antimony oxide and synergists manufacturing assets, intellectual property, and customer lists for both Great Lakes and Laurel. Great Lakes will act as the managing partner with responsibility for sales, customer service, technical support, credit, and logistics. Great Lakes officials noted that the domestic antimony industry continues to face pressure from Chinese imports, and that by merging operations with Laurel, the unified organization would increase its competitive position. Manufacturing for the joint venture will be consolidated into the existing Great Lakes antimony production facility in Reynosa, Mexico, which is ISO

9001:2000 certified. The Laurel production facility in LaPorte, TX, which currently employs 14 people, is expected to be closed by the end of 2004, when production of flame retardants and catalyst grades of antimony oxide will be transferred to the Great Lakes facility. Great Lakes and Laurel will be working closely with customers to ensure adequate inventories and shipping times (Great Lakes Chemical Corp., 2004).

The United States will have only one producer of antimony products by the end of 2004, the United States Antimony Corp. (USAC), based in Montana. USAC observed that prevailing higher antimony prices would make the United States Antimony Mexico (USAMA) Mine and processing properties in Mexico viable. USAMA is a Mexican corporation that is 50% owned by USAC. USAC produces antimony oxide as a flame retardant; sodium antimony for glass; and antimony metal for ordinance, bearings, lead alloys, etc. USAC also recycles many antimony products which otherwise would be taken to landfill sites (Metal-Pages, 2004§<sup>1</sup>).

#### **Reference Cited**

Great Lakes Chemical Corp., 2004, Great Lakes and OxyChem form antimony oxide joint venture: Indianapolis, IN, Great Lakes Chemical Corp., press release, March 17, 2 p.

#### **Internet Reference Cited**

Metal-Pages, 2004 (March 29), Corporation sole US Sb producer, accessed March 30, 2004, via URL http://www.metal-pages.com.

<sup>&</sup>lt;sup>1</sup>A reference that includes a section mark (§) is found in the Internet Reference Cited section.

## TABLE 1 SALIENT ANTIMONY STATISTICS $^1$

(Metric tons, antimony content, unless otherwise specified)

	2	2004		
_	Total <sup>p</sup>	Fourth quarter	First quarter	
Production:				
Primary smelter <sup>2</sup>	W	W	W	
Secondary	3,820 <sup>r</sup>	974 <sup>r</sup>	1,000	
Imports for consumption:	26,700	5,060	4,370 <sup>3</sup>	
Ore and concentrate	412	21	20 3	
Metal	4,670	598	817 <sup>3</sup>	
Oxide <sup>4</sup>	21,600	4,440	3,530 <sup>3</sup>	
Exports:	4,270	1,010	815 3	
Metal, alloys, and scrap (gross weight)	771	144	121 <sup>3</sup>	
Oxide <sup>4</sup>	3,500	864	694 <sup>3</sup>	
Consumption of primary antimony	10,300 <sup>r</sup>	2,360 <sup>r</sup>	2,960	
Price: Average cents per pound <sup>5</sup>	107.52	92.20	127.67	
Stocks, end of period <sup>6</sup>	W	W	3,480	

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data.

TABLE 2 INDUSTRY STOCKS OF PRIMARY ANTIMONY IN THE UNITED STATES  $^{\rm I}$ 

(Metric tons, antimony content)

	2003	2004 <sup>2</sup>		
Class of material	Fourth quarter	First quarter		
Metal	166 <sup>r</sup>	177		
Oxide	W	2,750		
Other <sup>3</sup>	W	551		
Total	W	3,480		

<sup>&</sup>lt;sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits, except prices.

<sup>&</sup>lt;sup>2</sup>Nearly all primary smelter output is antimony trioxide.

<sup>&</sup>lt;sup>3</sup>Data for January and February only.

<sup>&</sup>lt;sup>4</sup>Antimony content is calculated by the U.S. Geological Survey.

<sup>&</sup>lt;sup>5</sup>New York dealer price for 99.5% to 99.6% metal, c.i.f. U.S. ports.

<sup>&</sup>lt;sup>6</sup>Producer and consumer stocks.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Estimated 100% coverage based on reports from respondents who held 78% of the total stocks of antimony at the end of 2002.

<sup>&</sup>lt;sup>3</sup>Includes ore and concentrate, sulfide, and residues.

## ${\bf TABLE~3} \\ {\bf INDUSTRIAL~CONSUMPTION~OF~PRIMAR~Y~ANTIMON~Y}^{1,\,2} \\$

(Metric tons, antimony content)

		2003		
Class of material consumed	Total <sup>p</sup>	Fourth of	luarter	First quarter
Metal	W		W	W
Oxide	8,450	r	1,950 <sup>r</sup>	2,440
Other <sup>3</sup>	1,880	r	410 <sup>r</sup>	523
Total	10,300	r	2,360 <sup>r</sup>	2,960

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

TABLE 4 REPORTED CONSUMPTION OF PRIMARY ANTIMONY, BY CLASS OF MATERIAL PRODUCED  $^{\rm l}$ 

(Metric tons, antimony content)

	20	2004 <sup>2</sup>		
Product	Total <sup>p</sup>	Fourth quarter	First quarter	
Metal:				
Bearing metals and bearings	W	W	W	
Other <sup>3</sup>	2,850 <sup>r</sup>	601 <sup>r</sup>	798	
Total	2,850 <sup>r</sup>	601 <sup>r</sup>	798	
Nonmetal:				
Ceramics and glass	W	W	W	
Plastics	W	W	W	
Other <sup>4</sup>	2,900 <sup>r</sup>	692 <sup>r</sup>	1,140	
Total	2,900 <sup>r</sup>	692 <sup>r</sup>	1,140	
Flame-retardants:				
Plastics	1,790 <sup>r</sup>	423 <sup>r</sup>	442	
Other <sup>5</sup>	2,780 °	642 <sup>r</sup>	587	
Total	4,580 <sup>r</sup>	1,060 <sup>r</sup>	1,030	
Total reported	10,300 r	2,360 <sup>r</sup>	2,960	

Preliminary. <sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Estimated 100% coverage based on reports from respondents who consumed 26% of the total antimony in 2002.

<sup>&</sup>lt;sup>3</sup>Includes ores and concentrates, sulfide, and residues.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Estimated 100% coverage based on reports from respondents who consumed 69% of the total antimony in 2002.

<sup>&</sup>lt;sup>3</sup>Includes ammunition, antimonial lead, bearing metals and bearings, cable coverings, castings, sheet and pipe, and solder.

<sup>&</sup>lt;sup>4</sup>Includes ammunition primers, pigments, ceramics and glass, and plastics.

<sup>&</sup>lt;sup>5</sup>Includes adhesives, pigments, rubber, and textiles.

 ${\bf TABLE~5} \\ {\bf U.S.~IMPORTS~FOR~CONSUMPTION~OF~ANTIMONY,~BY~CLASS~AND~COUNTRY}^{\rm I}$ 

(Metric tons, antimony content)

	2003			2004		
_			Fourth			January-
Class and country	Total <sup>p, 2</sup>	December	quarter	January	February	February
Ore and concentrate:						
China	350	20	20		20	20
Other	63		1			
Total	412	20	21		20	20
Metal:						
China	3,350	81	381	534	160	694
Mexico	655		161	20		20
Peru	394		36	54		54
Other	270		19	1	48	49
Total	4,670	81	598	609	207	817
Oxide:						
Belgium	2,150	75	218	86	162	248
China	7,940	496	1,290	771	1,000	1,770
Hong Kong	1,430	232	249	17		17
Mexico	7,240	597	1,810	631	706	1,340
South Africa	2,630	488	847	133		133
Other	193	15	28	1	26	27
Total	21,600	1,900	4,440	1,640	1,900	3,530
Grand total	26,700	2,000	5,060	2,250	2,120	4,370
Other antimony compounds (gross weight)	59		12	5		5

<sup>&</sup>lt;sup>p</sup>Preliminary. -- Zero.

Source: U.S. Census Bureau. Antimony content is calculated by the U.S. Geological Survey.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Includes revisions to prior months data.